



# KARO ECHO Newsletter

## KARO ECHO

Serving the communities  
of El Cerrito and  
Kensington, California

**Web:** [www.karoecho.net](http://www.karoecho.net)

**Facebook:**  
[KARO ECHO facebook](#)

**Email:** [info@karoecho.net](mailto:info@karoecho.net)

## Important Frequencies

KE Primary: 146.415 MHz  
Weekly Net, Thurs. 1900

KE Secondary: 146.475 MHz

4Cs Repeater: 145.110 MHz  
(TX down 600 with PL 82.5)

## Monthly Meetings

In-person meetings

2<sup>nd</sup> Monday of each month  
7:00 pm

**(online via Zoom for now)**

Arlington Park Clubhouse,  
1120 Arlington Blvd,  
El Cerrito, CA

The next meetings are:

Mar 8<sup>th</sup>, 2021

Apr 12<sup>th</sup>, 2021

Meeting minutes are on  
the website in the past  
events page.

## What's New

### KARO ECHO Monthly Meeting, March 8th, 1900 — **ONLINE VIA ZOOM**

The monthly KARO ECHO meeting will be held using the Zoom online meeting app, at the usual time, 1900, Monday March 8th. Look for the link to join in a KARO ECHO email from Howdy KE6BEE. The training session will include planning/discussion of the upcoming spring SET exercise, scheduled for April 10. In addition to standing items/reports, topics will include: Club callsign, ARRL affiliation with KARO ECHO, and newsletter advertisement/classifieds.

### KARO ECHO Spring SET—April 10

The Spring SET is scheduled for Sat. April 10, 10am-12pm. [Please fill out this google form to register for the SET](#). The SET emphasizes field operation using battery power. There are opportunities to borrow equipment for anyone who might benefit from it. Natalie, KM6UCF, donated 500 full-color printed 8 1/2 X 11" KAROECHO Hybrid 213 messages forms, please indicate on the registration form if you'd like some forms to use in the SET and beyond.

### Club Callsign

Following the decision to acquire a club callsign during the January member meeting, KARO ECHO applied for and was issued the sequential call KN6NMN with Howdy KE6BEE as the trustee. Because this is an unfortunately awkward callsign (both with and without use of phonetics), we intend to apply for a vanity call, before the new fees become active on these transactions.

### **Important! - Membership Renewals are due at the beginning of the year**

Please renew your KARO ECHO membership dues for this year if you haven't already. You can pay Treasurer Larry KK6GIO (check made out to KARO ECHO). Mail to P.O. Box 2025, El Cerrito, CA, 94530-3651. \$30 for individual membership, or \$40 for family membership.

Did you try to make a membership payment through the Paypal link on the KARO ECHO website? The account was never fully registered, so the payments did not go through. You can cancel manually, or your payment will be automatically refunded after about 1 month.

**LOCAL NETS****KARO ECHO NET**

146.415 MHz Simplex

Thursday eve, immediately after the West Contra Costa RACES Net, but never before 1900 hours local time.

**West Contra County ACS/RACES Net**

145.110 MHz repeater

(TX down 600 with PL 82.5)

Thursday: 1845 local time

**Contra Costa County HF EmComm/RACES Net**

3893 KHz

Thursday: 1835 local time

**American Red Cross of the Bay Area (ARCBA)**

WW6BAY Repeater

443.975 MHz

TX +5 MHz, PL 100 Hz

Wednesday: 2000 local time

**BOARD OFFICERS**

President: Hal KK6NDF

Vice-Pres.: Howdy KE6BEE

Treasurer: Larry KK6GIO

Secretary: Tom KN6BUY

Outreach Manager:

Annette, KJ6SWK

Emergency Coordinator:

Howdy KE6BEE

(also newsletter editor and net coordinator)

Webmaestro: Rob K6RJM

**What's New *(continued)*****Neighborhood nets and Communication Hub Activities**

The first Wednesday of the month has a lot of radio activity in the area.

**West county EmComm net out of Richmond at 11 am** (starts after the Richmond siren test) FRS/GRMS simplex (on Ch.19, secondary Ch. 17) immediately followed by a ham net on the [WA6KQB 440 repeater](#) with WA6DUR repeater as secondary (see WA6DUR freq. information below)

**East Richmond Heights**, ham operators check-in at 1845 on Walt's WA6DUR repeater 442.150 +5 offset and PL tone 107.2Hz.

**EC4 (central El Cerrito Hills)** CERT Net, Ch. 2 simplex (462.5875), at 1845

**EC9 (north El Cerrito Hills)** CERT Net, Ch. 15 simplex (462.550), at 1900 - reported 12 check-ins for March 3rd.

**East Richmond Heights, Ready-2-React Net**, Ch. 7 simplex (462.7125), at 1930

**New — EC8 (north El Cerrito)** CERT net, Ch.1 simplex (462.5625), at 2000

**Richmond simulated EOC net**, first Thursdays at 1030, on three simplex frequencies in this order: 147.450, 441.000, 223.400

**Albany Radio Net**, Wed. (weekly) 1900 on Ch.19 [Albany Radio groups.io](#)

[Coordination of neighborhood FRS/GMRS frequencies can be found here.](#)

**Recent Elmer Activity**

An EC9 CERT member installed a (6 dBd/8.1dBi gain) GMRS/440 antenna (TRAM 1486) on his roof after cutting/tuning help and cabling by Elmer Don NI6A. This service is offered free by KARO ECHO. Numerous phone and EMAIL consultations occurred regarding SWR, Anderson Power Pole connectors, as well as home visits and the lending of special test equipment. Contact [elmer@karoecho.net](mailto:elmer@karoecho.net) for "free advice".

**Welcome New Hams**

New El Cerrito licenses issued: none in past month

New Kensington licenses issued: none in past month

**Action - Contribute to this Newsletter**

Content for this newsletter is always welcome. A new free classified section for selling/trading radio equipment/services seeks submissions. Anyone with events or other content suggestions please send them to the newsletter editor Howdy KE6BEE [ke6bee@arrl.net](mailto:ke6bee@arrl.net)

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## What's New *(continued)*

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### FEMA communication hub webinar, March 17th

FEMA is hosting a [webinar on community based emergency communications hubs](#) on March 17th, 9-10am PDT. The Seattle Emergency Communications Hubs will talk about how they establish locations and organize volunteers to lead those efforts at the ground level while the larger first responder and government activities get underway.

### Richmond CERT — presentation by Napa CERT about fire deployments — Wed. March 10th

The Richmond CERT meeting on Weds. March 10 at 6:30pm will feature Powell Hellems of American Canyon CERT presenting the work of the Napa area CERT organizations in response to recent wildfire events, including communications logistics for animal rescue and sheltering. **Please RSVP, by clicking on the Zoom link to register to attend.**

<https://zoom.us/j/97529749110?pwd=YUdtQVJEaXdJUG1kN014WEtIMjFzZz09>

Meeting ID: 975 2974 9110

Passcode: 217167

One tap mobile +16699006833,,97529749110# US (San Jose)

### Club affiliation with ARRL

KARO ECHO will consider ARRL affiliation at the March meeting. There are many benefits for an ARRL affiliated club, including recruitment tools, PR, additional funding (commissions), etc.

[ARRL affiliated club general description](#)

[Resources](#)

[Benefits](#)

[How to apply](#)

[Club Kit \(PDF\)](#)

Commission Terms:

ARRL Affiliated Clubs receive a commission for every new ARRL membership and renewal they submit to ARRL Headquarters. Clubs retain a portion of the dues for each regular membership submitted to ARRL Headquarters (clubs retain \$15 for each new membership OR lapsed membership of two years or more). A new member is defined as any individual who has never been a member of ARRL or any individual who has not retained a membership for two or more calendar years prior to the application submission. Clubs retain \$2 for each renewal. A renewing member can renew at anytime, even before their current membership term expires.

### Advertising/classifieds in newsletter

It has been suggested that the KARO ECHO members may benefit from accepting commercial ads in the newsletter. As an example HRO advertises in many ham club newsletters and, in exchange, offers discounts to members who purchase from HRO. We are also soliciting input from members on the inclusion of classified ads in the newsletter for the purpose for gifting/swapping/selling radio gear and/or offering help/services such as loans of special equipment/tools, etc.

## Activities

### Weekly Net Control Rotation

Thanks go out to the volunteer stations who have been taking turns as Net Control Stations (NCS) each Thursday. This rotation has been working very well and everyone has been doing a great job. The regular NCS roster has 9 operators. We have one opening as an opportunity for others to fill in. Please volunteer to give it a try. [Download the new Net Script for NCS operators.](#)

Below are the current scheduled dates for each operator. The [KARO ECHO google calendar](#) also has these assignments and can be found at the bottom of the events page. Add to your electronic calendar By pressing the "+GoogleCalendar" button in the lower right.

Net control is a skill that many operators should have and regularly practice. Please contact Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) if you are interested in taking a net control assignment.

Callsign	Name	Assigned Dates (skipped: 11/26/2020, 11/25/2021, 12/24/2020, 12/31/2020)						
KE6BEE	Howdy Goudey	9/17/2020	11/19/2020	2/11/2021	4/15/2021	6/17/2021	8/19/2021	10/21/2021
KK6NDF	Hal Graboske	9/24/2020	12/3/2020	2/18/2021	4/22/2021	6/24/2021	8/26/2021	10/28/2021
KM6HBO	Jamuel Starkey	10/1/2020	12/10/2020	2/25/2021	4/29/2021	7/1/2021	9/2/2021	11/4/2021
	Open	10/8/2020	12/17/2020	3/4/2021	5/6/2021	7/8/2021	9/9/2021	11/11/2021
K6RJM	Rob McNicholas	10/15/202	1/7/2021	3/11/2021	5/13/2021	7/15/2021	9/16/2021	11/18/2021
KE6HCE	Armando Picciotto	10/22/202	1/14/2021	3/18/2021	5/20/2021	7/22/2021	9/23/2021	12/2/2021
NI6A	Don Simon	10/29/202	1/21/2021	3/25/2021	5/27/2021	7/29/2021	9/30/2021	12/9/2021
KM6TCB	Dave Roth	11/5/2020	1/28/2021	4/1/2021	6/3/2021	8/5/2021	10/7/2021	12/16/2021
KK6ZPM	Karen Fenton-Leong	11/12/202	2/4/2021	4/8/2021	6/10/2021	8/12/2021	10/14/2021	12/23/2021

### Thursday Net Training Exercises

Following the net check-ins every Thursday at 1900 on 146.415, KARO ECHO usually runs a training exercise to learn and practice skills that are important for successful disaster communications.

[A list of potential training exercises](#) is posted and maintained on the training page of the website.

[A log of our check-in counts can be found here.](#) Howdy KE6BEE typically updates this document in real time during the net, so you can check it against your log during or after the net.

We averaged 21 check-ins/week in 2020 with a high of 28. So far in 2021, we are averaging 20/week with a high of 25. Thanks for your participation. Keep it up!

Thanks to first time Net Control operator David KN6BVF who tool the 3/4 net and did a great job.

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## About KARO ECHO

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KARO ECHO is the name of the Kensington Amateur Radio Operators and the El Cerrito Ham Operators mutual benefit association, an all-volunteer non-profit group of amateur radio operators providing auxiliary communications for the cities of Kensington and El Cerrito in the event of a disaster. KARO ECHO works with CERT (Community Emergency Response Teams) in Kensington and El Cerrito, but is not an official part of the CERT program.

Monthly in-person meetings of KARO ECHO are on the 2nd Monday of each month at 7:00 pm at the Arlington Park Clubhouse, 1120 Arlington Blvd, El Cerrito, CA. The next meetings are:

- ♦ Mar 8<sup>th</sup>, 2020
- ♦ April 12<sup>th</sup>, 2020

Yearly membership dues are \$30/year for individuals, \$40/year for a family membership. Payments can be given to the Treasurer at monthly meetings or mailed to the address below. Participation is welcome independent of paid membership, but only licensed amateur radio operators who are dues paying KARO ECHO members will be allowed to vote on KARO ECHO business. Dues cover our 510c3 registration, post office box, web page, station operating manuals and more. Your input on useful expenditures to aid emergency communications is welcome.

Mail to: KARO ECHO, PO Box 2025, 6324 Fairmont Ave, El Cerrito, CA 94530-3651

Please see our website for more information: [www.karoecho.net](http://www.karoecho.net)

You can contact the KARO ECHO board by email: [info@karoecho.net](mailto:info@karoecho.net)

### KARO ECHO Facebook

The [KARO ECHO Group on Facebook](#) has a lot of good information, more than is contained on our website. There is a whole wide world of emergency communications information at <https://www.facebook.com/groups/1451216838315743/> Check it out and be inspired of what we can do to help disaster victims in our community.

### Weekly Training Net

The Karo-Echo Weekly Training Net meets every Thursday evening immediately after the West Co Co County RACES/ACS Net; but not before 1900 on 146.415 MHz Simplex. Details at <https://www.karoecho.net/events>

### KARO-ECHO Frequencies

The KARO ECHO primary frequency is 146.415 MHz simplex. Our secondary frequency is 146.475 MHz simplex, a 60 KHz spread between operating frequencies reduces adjacent frequency interference.

### Newsletter Content Wanted

Any input on content you'd like to propose for inclusion in the KARO ECHO newsletter can be sent to Howdy [ke6bee@arrl.net](mailto:ke6bee@arrl.net) We welcome all ideas for content including announcements, events, etc.

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## Outreach, Education and Licensing

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### Local and Online Ham License Classes and Exams

COVID restrictions have changed ham license classes and exams. Many are now offered in distanced/outdoor venues or entirely online. See a [list of opportunities on the KARO ECHO website](#)

### Recruiting Additional Communications Coordinators

Read the [Neighborhood District Radio Communications Coordinator \(DRCC\) plan](#) written by Don NI6A.

### Training for Beginning Operators

Thanks to Jay KJ6WSS, Edward KM6UBY and Karen KK6ZPM for their May 23rd introductory radio class, with emphasis on the GMRS radio BTECH-V1. [A recording of the class and other resources are available here.](#)

### Net Control Operator Training

Diane KK6RED, David KJ6AAT and Howdy KE6BEE taught an Apr 4th net control class for C8 the county wide CERT organization. There was a great reception to this class across the county and we inspired many groups to expand the scope of their net trainings. [The class recording is available here.](#)

### EMCOMM related videos

See the CERT SET Youtube video link

<https://www.youtube.com/watch?v=66DdgGLn4c&list=PLROOaUIKdrEgSID1bQJZojW3PzfURoEY-&index=144&t=0s>

Post Camp Fire GMRS organization

[https://www.youtube.com/watch?time\\_continue=220&v=aZiSC4sgKYw&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=220&v=aZiSC4sgKYw&feature=emb_logo)

### ELMERING

An online elmering forum can be accessed by emailing [elmer@karoecho.net](mailto:elmer@karoecho.net) or browsing the associated google group. More in-depth elmering/mentoring is available by request.

In the meanwhile, please check out the plethora of useful information at <https://www.karoecho.net> website.

### Encouragement to Monitor 146.415 and Explore Other Nets

During the current shelter in place, with time spent at home, it is a good opportunity to use your radio and monitor 146.415 (call out for others occasionally and make some casual contacts). There are a lot of other nets around the bay area that you can reach. Expand your radio horizons. See the [KARO ECHO Coordination page](#) for a listing of some other nets to explore. You can just listen at first, or program your radio (if a repeater is used) and try transmitting as a guest check-in to see if you can make contact.



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## KAROECHO.Net Website

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Especially, check out the EVENTS Page ( <https://www.karoecho.net/events> ) and the WORKSTREAMS drop-down menu which will lead one to an extensive training page that provides online learning at your own pace. Everything from the very beginning to advanced EmComm operations is detailed. The RESOURCE page has many excellent outside links.

- ♦ If you are on Facebook, contribute to the KARO ECHO Facebook Group Page at <https://www.facebook.com/groups/1451216838315743/>
- ♦ If you haven't already filled out the JOIN form please do. Find it as a drop down menu under "Get Involved" See <https://www.karoecho.net/join>
- ♦ A follow-through novice primer has been put on the website for new hams once they have bought their radio and want to learn more. See: <https://drive.google.com/file/d/10J-569BRrx5adhA-hJGPeNITU6B9Yi6z/view>
- ♦ Also a new Dual-Band antenna primer for new hams who want to graduate from the rubber-duddy world is at [https://drive.google.com/file/d/1u\\_ozABBRYDJDACFJRTV\\_rxWF1WjCgW\\_I/view](https://drive.google.com/file/d/1u_ozABBRYDJDACFJRTV_rxWF1WjCgW_I/view)
- ♦ Note that the Tram 1480 gain dual band antenna is currently still available for \$51 (no tax and free shipping) on ebay or from Home Depot. That and an inexpensive speaker tripod is a dynamite combination for portable operation. This antenna is equivalent to the Diamond X-200a antenna which sells at HRO for \$125.00 before taxes and shipping.
- ♦ For newbies, please visit <https://www.karoecho.net/workstreams/training> and read the study materials. It is all there except for hands-on experience. Ask questions!
- ♦ Following the Thursday evening net check-in, there is often a training session and/or discussion.
- ♦ All recent KARO ECHO **Minutes will be found at our Past Events page** We are now including past Executive Board Minutes as well. [Newsletters are on the Documents Page.](#)

If you desire to be removed from this email list, please email [info@karoecho.net](mailto:info@karoecho.net)

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## Other Resources

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"ALERTWildfire" camera links in our area:

[Wildcat Canyon cam](#)

[Vollmer Peak cam](#)

[Nichol Knob cam](#)

[View real-time data from any weather station in the state.](#)

[Albany Radio Groups.io forum](#)

[Eastbay Resilience Groups.io forum](#)

[Marina Bay Neighbors and 1st Wed West county GMRS net](#)

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## Technical corner: cutting a Tram 1486 GMRS/440 antenna

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The Tram 1486 is a five foot antenna ([~\\$70](#)) and for the GMRS and 440 bands with good gain (6 dBd/8.1dBi gain). This is not a 2m ham antenna. It is built with a single fiberglass protective section, but internally it has three elements that can be independently trimmed from the factory dimensions to select for optimal tuning on different frequency ranges. Don NI6A recently helped a CERT radio operator tune this antenna for GMRS/440 and here is the optimal cut guide for these bands based on his measurements.

**L1: 17 13/16" (452mm)   L2: 13 1/4" (336mm)   L3: 14 5/8" (372mm)                      (458 MHz nominal)**

One of these Tram 1486 antennas is part of the KARO ECHO go cart for use with the Kenwood TK-880 GMRS radio.

